

## Appendix B. Other Environmental Laws and Requirements

Federal activities affecting all environmental impact categories are governed by many statutes, regulations, and Executive Orders. Each impact category chapter of this Desk Reference (Chapters 1-14, as applicable) contains an exhibit with a tabular overview of the major applicable Federal statutes, regulations, Executive Orders, and the agencies responsible for overseeing their implementation. This appendix supplements the background information relevant to those requirements that is provided in the chapter exhibits. Please note that these requirements may not be applicable to every FAA action, and should only be included when relevant to the proposed project.

### B.1. Air Quality

The Clean Air Act (CAA) is the comprehensive Federal law that regulates the emission of air pollutants from stationary and mobile sources. Among other things, the CAA authorizes the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) for common air pollutants (known as “criteria pollutants”) to protect public health and welfare, and to regulate emissions of hazardous air pollutants (HAPs).

As stated in Chapter 1, electronic sources that may be useful when describing the affected environment for air quality include:

- FAA guidance documents on HAPs and climate change available at: [http://www.faa.gov/regulations\\_policies/policy\\_guidance/envir\\_policy/](http://www.faa.gov/regulations_policies/policy_guidance/envir_policy/);
- EPA’s CAA website at: <http://www.epa.gov/air/caa/>;
- EPA’s General Conformity guidance, including specific guidance for airports at: <http://www.epa.gov/air/genconform/background.html>;
- EPA’s Air Toxics (i.e., HAPs) website at: <http://www.epa.gov/ttn/atw/>; and
- For the attainment status of the study area for Federal and state air quality standards, visit the applicable state air quality management agency’s website. For example, if a study area is in California, go to the California Air Resources Board Area Designations Maps / State and National website at: <http://www.arb.ca.gov/desig/adm/adm.htm>. Additionally, the EPA’s *Green Book Nonattainment Areas for Criteria Pollutants* identifies areas of the country that have not attained air quality standards for criteria pollutants.

#### B.1.1. Pollutants, Sources, and Health Effects

##### B.1.1.1. Criteria Pollutants

Criteria pollutants are those pollutants that are common and found all over the United States. The EPA calls these pollutants “criteria” air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels (see *National Ambient Air Quality Standards* discussion below). The EPA uses measurements of criteria pollutants as indicators of air quality. The EPA has identified six

criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM) with an aerodynamic diameter equal to or less than 10 microns (PM<sub>10</sub>, or coarse particles) and 2.5 microns (PM<sub>2.5</sub>, or fine particles), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). These pollutants can harm human health and the environment and cause property damage. According to EPA, of the six criteria pollutants, PM and ozone are the most widespread health threats.<sup>1</sup>

### **B.1.1.2. Hazardous Air Pollutants**

In addition to the criteria pollutants, Section 112 of the CAA authorizes the EPA to regulate emissions of HAPs, also known as toxic air pollutants or air toxics. HAPs are pollutants that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. No NAAQS have been established for HAPs (except for lead, which is regulated as a criteria pollutant and as a HAP). At present, the EPA is required to control 187 HAPs. A complete list of the regulated HAPs can be found on EPA's Air Toxics website at: <http://www.epa.gov/ttn/atw/orig189.html>. In addition, information regarding HAPs is available on the FAA's Environmental Policy website at: [http://www.faa.gov/regulations\\_policies/policy\\_guidance/envir\\_policy/](http://www.faa.gov/regulations_policies/policy_guidance/envir_policy/). For example, see [http://www.faa.gov/regulations\\_policies/policy\\_guidance/envir\\_policy/media/HAPs\\_rpt.pdf](http://www.faa.gov/regulations_policies/policy_guidance/envir_policy/media/HAPs_rpt.pdf) for a bibliography on HAPs associated with aviation.

### **B.1.1.3. National Ambient Air Quality Standards**

The NAAQS are air quality standards set by the EPA for criteria pollutants that are among the most harmful to public health and the environment. The CAA directs the states to develop plans (see *State Implementation Plans* discussion below) in order to achieve these standards.

The EPA has established a set of NAAQS for the six criteria pollutants listed above. There are primary and secondary NAAQS for most of the criteria pollutants (see Exhibit B-1 below). The primary standards were established to protect the public health with an adequate margin of safety. The secondary standards were established to protect the public welfare from any known or anticipated adverse effects of a pollutant (e.g., damage to crops and materials). Compliance with the NAAQS means the ambient outdoor levels of the criteria air pollutants are presumed safe for human health, public welfare, and the environment.

Under the CAA, states are allowed to adopt their own ambient air quality standards, provided their proposed standards are at least as stringent as the NAAQS. Similarly, state standards may include additional pollutants that are not regulated under the NAAQS. For example, the California Ambient Air Quality Standards established under the California Clean Air Act of 1988 are generally different from and more stringent than the NAAQS. Furthermore, in addition to the six pollutants regulated under the NAAQS, the California Ambient Air Quality Standards set acceptable levels for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Federal actions that are implemented in states that have separate state ambient air quality standards are required to comply with state ambient air quality standards in the same way they are required to comply with the NAAQS. The EPA's established NAAQS are displayed in Exhibit B-1 below.

---

<sup>1</sup> <http://www.epa.gov/air/urbanair/>

**Exhibit B-1. National Ambient Air Quality Standards<sup>a</sup>**

Pollutants	Primary Standards Value	Primary Standards Averaging Period	Secondary Standards
CO	9 ppm (10 mg/m <sup>3</sup> )	8 hours	None
CO	35 ppm (40 mg/m <sup>3</sup> )	1 hour	None
NO <sub>2</sub>	53 ppb	Annual (Arithmetic average)	Same as primary
NO <sub>2</sub>	100 ppb	1 hour	None
O <sub>3</sub>	0.075 ppm	8 hours	Same as primary
PM <sub>10</sub>	150 µg/m <sup>3</sup>	24 hours	Same as primary
PM <sub>2.5</sub>	15.0 µg/m <sup>3</sup>	Annual (Arithmetic average)	Same as primary
PM <sub>2.5</sub>	35 µg/m <sup>3</sup>	24 hours	Same as primary
SO <sub>2</sub>	75 ppb	1 hour	None
SO <sub>2</sub>	None	None	500 ppb average period of 3 hours
Pb	0.15 µg/m <sup>3</sup>	Rolling 3-month average	Same as primary

Source: EPA's NAAQS website at: <http://www.epa.gov/air/criteria.html>. The information in the table is current as of September 2012. Please refer to the website to check for updates as well as to review additional notes that pertain to these standards. The standards are codified at 40 Code of Federal Regulations (CFR) part 50.

<sup>a</sup> CO = carbon monoxide; Pb = lead; NO<sub>2</sub> = nitrogen dioxide; PM<sub>10</sub> and PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter equal to or less than 10 microns and 2.5 microns, respectively; O<sub>3</sub> = ozone; SO<sub>2</sub> = sulfur dioxide; mg/m<sup>3</sup> = milligram per cubic meter; ppb = part per billion; ppm = part per million; µg/m<sup>3</sup> = microgram per cubic meter

***Designation of Areas by Air Quality Status***

To further define local and regional air quality, the EPA has divided the country into areas that achieve the NAAQS, called *attainment areas*, and those that do not achieve the NAAQS, called *nonattainment areas*. The nonattainment and attainment designations are based on air quality monitoring data. Areas for which available data are not sufficient to make an attainment status designation are listed as *unclassifiable*.<sup>2</sup> Unclassifiable areas are treated as attainment areas for regulatory purposes. Areas that were previously designated nonattainment and subsequently re-designated to attainment due to meeting the NAAQS are classified as *maintenance areas*. The official list of nonattainment, attainment, maintenance, and unclassified areas and a description of their boundaries is available at 40 CFR part 81. The EPA maintains an unofficial list of these

<sup>2</sup> Areas designated unclassifiable sometimes are referred to as “unclassified” though this term is not used in the Clean Air Act (CAA).

areas on its Green Book website at: <http://www.epa.gov/oar/oaqps/greenbk/>. The EPA publishes notices on its Green Book website when the status of a nonattainment area changes. The EPA also tracks *Federal Register* notices regarding status changes (see the EPA's Green Book website at: <http://www.epa.gov/oar/oaqps/greenbk/adden.html>). The EPA's Green Book website should be checked when assessing the attainment status of the study area.

### ***State Implementation Plans***

The responsibility for designating areas that are in attainment, nonattainment, or maintenance for each of the criteria pollutants has been delegated to the states by the EPA. States are required to develop EPA-approved State Implementation Plans (SIPs) to achieve or maintain the NAAQS within timeframes set under the CAA. The SIP documents how the region will reach attainment by the required date. The SIP includes inventories of emissions within the area and establishes emissions budgets (the emissions levels or targets required for the area to reach attainment) designed to bring the area into compliance with the NAAQS. In maintenance areas, the SIP documents how the state intends to maintain compliance with the NAAQS. The SIP accounts for all the emissions within the Federally-designated air quality management area that affect air quality. To comply with the SIP, a Federal action must not result in any new violations or worsen any existing violations of the NAAQS or state standards, must not delay timely attainment of any standard or any required interim emission reductions or other milestones, and must meet the conditions of the general conformity regulations (discussed below). If a state fails to submit an adequate SIP or fails to implement an approved SIP, the EPA is required to promulgate a Federal Implementation Plan (FIP).

***State Implementation Plan*** – A state's detailed description of the regulations, programs, and measures the state will use to reduce air pollution in the state and to fulfill its responsibilities under the Clean Air Act to attain the NAAQS for all criteria air pollutants in the state within legally required timeframes.

#### **B.1.1.4. Conformity**

Conformity is defined as conformity to the SIP's (or FIP's) purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. It requires that Federal activities will not:

1. Cause or contribute to any new violation of any standard in any area;
2. Increase the frequency or severity of any existing violation of any standard in any area; or
3. Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

Conformity typically is evaluated using an emissions analysis.

#### ***Purpose***

Section 176(c) of the CAA requires that Federal actions conform to the appropriate SIPs or FIPs in order to attain the CAA's air quality goals. Section 176(c) states that no Federal entity shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not "conform" to the applicable SIP or FIP. The purpose of this conformity requirement is to ensure that Federal activities: (1) do not interfere with the budgets

in the SIPs; (2) do not cause or contribute to new violations of the NAAQS; and (3) do not impede the ability to attain or maintain the NAAQS.

### ***Applicability***

To implement Section 176(c), the EPA issued the Transportation Conformity Rule (40 CFR part 93, subpart A) which applies to Federal actions funded under United States Code (U.S.C.) Title 23 or the Federal Transit Act, and the General Conformity Rule (40 CFR part 93, Subpart B) which applies to all other Federal actions. Actions that are subject to the Transportation Conformity Rule generally involve highway or transit projects and are not related to aviation, with some exceptions (see *Transportation Conformity* discussion below). Most FAA actions that are subject to conformity will be subject only to the General Conformity Rule. The conformity rules apply only to Federal actions in nonattainment or maintenance areas.

### ***General Conformity***

The General Conformity Rule was published in the *Federal Register* on November 30, 1993, and amended on April 5, 2010. A summary of the rule and amendments can be found in the EPA's General Conformity Training Module at: [http://www.epa.gov/airquality/genconform/training/09\\_AppendixB.html](http://www.epa.gov/airquality/genconform/training/09_AppendixB.html).

The General Conformity Rule established a process based on emissions analysis to determine whether a Federal action conforms to the SIP. The rule defines emissions as “direct” or “indirect” (see 40 CFR § 93.152). Actions that do not meet the definitions of direct or indirect emissions are exempt from the General Conformity Rule. “Direct emissions” are those that occur at the same time and place as the Federal action. The definition of “indirect emissions” contains four criteria, all of which must be met. As stated in 40 CFR § 93.152, indirect emissions means those emissions of a criteria pollutant or its precursors:

- That are caused or initiated by the Federal action and originate in the same nonattainment or maintenance area but occur at a different time or place from the action;
- That are reasonably foreseeable;
- That the agency can practically control; and
- For which the agency has continuing program responsibility.

When developing the General Conformity Rule, the EPA recognized that many actions conducted by Federal agencies do not result in substantial increases in air pollutant emissions in nonattainment and maintenance areas. Therefore, the EPA established threshold levels (also referred to as *de minimis* levels) for emissions of each of the criteria pollutants. When the sum of the increases in direct and indirect emissions caused by a project would be less than the *de minimis* levels, a project would not require a general conformity determination. The general conformity *de minimis* levels for the criteria pollutants are displayed in Exhibit B-2 and B-3 below.

**Exhibit B-2. Nonattainment Areas General Conformity De Minimis Emission Levels<sup>a</sup>**

<b>Pollutant (Precursor)</b>	<b>Area Type</b>	<b>Tons per Year</b>
O <sub>3</sub> (VOC or NO <sub>x</sub> )	Serious	50
O <sub>3</sub> (VOC or NO <sub>x</sub> )	Severe	25
O <sub>3</sub> (VOC or NO <sub>x</sub> )	Extreme	10
O <sub>3</sub> (VOC or NO <sub>x</sub> )	Marginal and moderate ozone nonattainment areas outside an ozone transport region	100
O <sub>3</sub> (NO <sub>x</sub> )	Marginal and moderate ozone nonattainment areas inside an ozone transport region	100
O <sub>3</sub> (VOC)	Marginal and moderate ozone nonattainment areas inside an ozone transport region	50
CO, SO <sub>2</sub> , or NO <sub>2</sub>	All nonattainment areas	100
PM <sub>10</sub>	Moderate	100
PM <sub>10</sub>	Serious	70
PM <sub>2.5</sub> (Direct emissions)	All PM <sub>2.5</sub> nonattainment areas	100
PM <sub>2.5</sub> (SO <sub>2</sub> )	All PM <sub>2.5</sub> nonattainment areas	100
PM <sub>2.5</sub> (NO <sub>x</sub> , unless determined not to be a significant precursor)	All PM <sub>2.5</sub> nonattainment areas	100
PM <sub>2.5</sub> (VOC or ammonia, if determined to be significant precursors)	All PM <sub>2.5</sub> nonattainment areas	100
Pb	All Pb nonattainment areas	25

Source: 40 CFR § 93.153 as presented in EPA. 2011. General Conformity *De Minimis* Levels. <http://www.epa.gov/airquality/genconform/deminimis.html> (last updated July 22, 2011).

<sup>a</sup> CO = carbon monoxide; NO<sub>x</sub> = nitrogen oxides; NO<sub>2</sub> = nitrogen dioxide; O<sub>3</sub> = ozone; Pb = lead; PM<sub>10</sub> = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound.

**Exhibit B-3. Maintenance Areas General Conformity De Minimis Emission Levels<sup>a</sup>**

<b>Pollutant (Precursor)</b>	<b>Area Type</b>	<b>Tons per Year</b>
Ozone (NO <sub>x</sub> , SO <sub>2</sub> , or NO <sub>2</sub> )	All ozone maintenance areas	100
Ozone (VOCs)	Ozone maintenance areas inside an ozone transport region	50
Ozone (VOCs)	Ozone maintenance areas outside an ozone transport region	100
CO or PM <sub>10</sub>	All maintenance areas	100
PM <sub>2.5</sub> (Direct emissions)	All PM <sub>2.5</sub> maintenance areas	100
PM <sub>2.5</sub> (SO <sub>2</sub> )	All PM <sub>2.5</sub> maintenance areas	100
PM <sub>2.5</sub> (NO <sub>x</sub> , unless determined not to be a significant precursor)	All PM <sub>2.5</sub> maintenance areas	100
PM <sub>2.5</sub> (VOC or ammonia, if determined to be significant precursors)	All PM <sub>2.5</sub> maintenance areas	100
Pb	All Pb maintenance areas	25

Source: 40 CFR § 93.153 as presented in EPA. 2011. General Conformity *De Minimis* Levels. <http://www.epa.gov/airquality/genconform/deminimis.html> (last updated July 22, 2011).

<sup>a</sup> CO = carbon monoxide; NO<sub>x</sub> = nitrogen oxides; NO<sub>2</sub> = nitrogen dioxide; O<sub>3</sub> = ozone; Pb = lead; PM<sub>10</sub> = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; SO<sub>2</sub> = sulfur dioxide; VOC = volatile organic compound.

***Transportation Conformity***

The EPA issued the Transportation Conformity Rule (see 40 CFR part 93, subpart A) to address conformity of highway, roadway, and transit plans and projects. Most Federal actions that are funded under U.S.C. Title 23 or the Federal Transit Act, and are therefore subject to transportation conformity, are sponsored by the Federal Highway Administration (FHWA) or the Federal Transit Administration. As noted above, most FAA actions to which conformity applies are subject only to the General Conformity Rule. However, some projects involving airport ground access that are funded under U.S.C. Title 23 or the Federal Transit Act may also be subject to the Transportation Conformity Rule. If any part of a project would be funded through U.S.C. Title 23 or the Federal Transit Act, the appropriate FAA Line of Business/Staff Office (LOB/SO) should be consulted with to determine how the Federal action should comply with the Transportation Conformity Rule.



### ***Exemptions***

Certain Federal actions are exempt from the requirements of the General Conformity Rule because they result in no emissions or minimal emissions. These include, but are not limited to the following (see 40 CFR § 93.153[c][2] for the complete list of actions):

- Continuing and recurring activities such as permit renewals where activities conducted will be similar in scope and operation to activities currently being conducted (40 CFR § 93.153[c][ii]);
- Routine maintenance and repair activities, including repair and maintenance of administrative sites, roads, trails, and facilities (40 CFR § 93.153[c][iv]);
- Routine operation of facilities, mobile assets, and equipment (40 CFR § 93.153[c][xiii]);
- Administrative actions such as personnel actions, organizational changes, debt management or collection, cash management, internal agency audits, program budget proposals, and matters relating to the administration and collection of taxes, duties, and fees (40 CFR § 93.153[c][vi]);
- Planning, studies, and provision of technical assistance (40 CFR § 93.153[c][xii]);
- The routine, recurring transportation of material and personnel (40 CFR § 93.153[c][vii]);
- Transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form or method of the transfer (40 CFR § 93.153[c][xiv]);
- Actions, such as the following, with respect to existing structures, properties, facilities, and lands where future activities conducted will be similar in scope and operation to activities currently being conducted at the existing structures, properties, facilities, and lands; for example, relocation of personnel, disposition of Federally-owned existing structures, properties, facilities, and lands, rent subsidies, operation and maintenance cost subsidies, the exercise of receivership or conservatorship authority, and assistance in purchasing structures (40 CFR § 93.153[c][x]);
- Civil and criminal enforcement activities, such as investigations, audits, inspections, examinations, prosecutions, and the training of law enforcement personnel (40 CFR § 93.153[c][v]); and
- Air traffic control activities and adopting approach, departure, and en route procedures for aircraft operations above the mixing height specified in the applicable SIP. Where the applicable SIP does not specify a mixing height, the FAA or applicant, as appropriate, can use the 3,000 feet above ground level (AGL) as a default mixing height, unless the FAA or applicant, as appropriate, demonstrates that use of a different mixing height is appropriate because the change in emissions at and above that height caused by the Federal action is *de minimis* (40 CFR § 93.153[c][xxii]).

### ***Actions Presumed to Conform***

In addition, the General Conformity Rule contains a provision that allows agencies to develop a list of actions presumed to conform which would be exempt from the requirements of the rule. The FAA published a list of actions presumed to conform at 72 *Federal Register* 41565-41580 (July 30, 2007); see <http://edocket.access.gpo.gov/2007/pdf/07-3695.pdf>. FAA actions presumed to conform consist of the following:

1. Pavement markings;



2. Pavement monitoring systems;
3. Non-runway pavement work;
4. Aircraft gate areas on airside;
5. Lighting systems;
6. Terminal and concourse upgrades;
7. New HVAC systems, upgrades, and expansions;
8. Airport security;
9. Airport safety;
10. Airport maintenance facilities;
11. Airport signage;
12. Commercial vehicle staging areas;
13. Low-emission technology and alternative fuel vehicles;
14. Airspace and air traffic control activities (e.g., adopting approach, departure, and en route procedures) for air operations that occur at altitudes above the atmospheric mixing height<sup>3</sup>; and air traffic control activities for air operations that occur at altitudes below the atmospheric mixing height, provided that modifications to routes and procedures are designed to enhance operational efficiency (i.e., to reduce delay), increase fuel efficiency, or reduce community noise impacts by means of engine thrust reductions; and
15. Routine installation and operation of aviation navigation aids.

For descriptions of the actions listed above, please see the FAA *Federal Register* notice.

## **B.2. Biological Resources**

The following statutes, Executive Orders, and memorandum govern the protection of biological resources.

### **B.2.1. Bald and Golden Eagle Protection Act**

The Bald and Golden Eagle Protection Act, administered by the U.S. Fish and Wildlife Service (USFWS), protects bald and golden eagles from the unauthorized capture, purchase, or transportation of the birds, their nests, or their eggs. Any action that might disturb these species requires a permit from the USFWS, which authorizes limited, non-purposeful take of bald and golden eagles. In limited cases, a permit may authorize the physical take of eagles, but only if every precaution is taken to avoid physical take. Removal of eagle nests is typically only

---

<sup>3</sup>The FAA interprets this presumption of conformity also to apply to emissions from commercial space launch vehicles and associated aircraft operations that occur at altitudes above the atmospheric mixing height.

allowed when necessary to protect human safety or the safety of the eagles. Coordination with the USFWS may be necessary if a proposed project has the potential to affect bald or golden eagles.

For additional information, see the following links:

- Information on Bald Eagle Management: <http://www.fws.gov/migratorybirds/baldeagle.htm>
- Federal Laws protecting Eagles: <http://www.fws.gov/midwest/eagle/protect/laws.html>
- Information on Eagle Permits: <http://www.fws.gov/midwest/MidwestBird/EaglePermits/index.html>

### B.2.2. Endangered Species Act

The USFWS and the National Marine Fisheries Service (NMFS) (collectively known as “the Services”) jointly administer the Endangered Species Act of 1973 (ESA), which requires all Federal agencies to seek to conserve threatened and endangered species. In general, the USFWS has jurisdiction over Federally-listed terrestrial and freshwater species, and the NMFS has jurisdiction over Federally-listed marine and anadromous species.<sup>4</sup> The ESA provides the following definitions of threatened and endangered species:

- **Threatened species.** Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
- **Endangered species.** Any plant or animal species that is in danger of extinction throughout all or a significant portion of its range.

Those species that are considered for possible addition to the list of threatened and endangered species are known as *candidate species*. Candidate species are not afforded regulatory protection under the ESA; however, these species are still important to include in the NEPA review as they may be listed in the foreseeable future. *Proposed species* are any species proposed to be listed as threatened or endangered, and are provided protection under the ESA.

Under the ESA, the Services are also required to designate *critical habitat* for listed species at the time of or within one year of each species’ listing.<sup>5</sup> Critical habitat is defined as specific areas within the geographic area occupied by the species at the time it is listed, which contain the physical or biological features essential to conservation of the species and that might require special management considerations or protection. Critical habitat also includes specific areas outside the geographic area occupied by the species if the Services determine that the area itself is essential for conservation of the species.

The most relevant section of the ESA to FAA actions is Section 7(a)(2), which requires Federal agencies, in consultation with the Services, to ensure that any action the agency authorizes, funds, or carries out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. As a result, the FAA must consult with the Services prior to taking any action that has the potential to affect listed

---

<sup>4</sup> The USFWS and NMFS have joint jurisdiction over some species, including sea turtles and certain fish species.

<sup>5</sup> Designation of critical habitat for a species usually does not occur within a year.

species. In addition, if a proposed project has the potential to impact a proposed species or proposed critical habitat, the FAA must confer with the Services under Section 7(a)(4).

For additional information on the ESA, see the following links:

- Endangered Species Act information: <http://www.fws.gov/endangered/laws-policies/index.html>
- Information on Endangered Species: <http://www.fws.gov/endangered/>
- Link to Information, Planning, and Conservation System (IPaC) database: <http://ecos.fws.gov/ipac/>

### **B.2.3. Fish and Wildlife Coordination Act**

The Fish and Wildlife Coordination Act of 1958 requires that Federal agencies consult with the USFWS, NMFS (in some instances), and appropriate state fish and wildlife agencies regarding the conservation of wildlife resources when proposed Federal projects may result in control or modification of the water of any stream or other water body. This Act provides for financial and technical assistance to states to develop conservation plans, subject to approval by the U.S. Department of the Interior (DOI), and implement state programs for fish and wildlife resources. The Act also encourages all Federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities, to conserve and to promote the conservation of non-game fish and wildlife and their habitats. Coordination with the USFWS and state wildlife agencies may be necessary if a proposed project has the potential to impact applicable water bodies.

For additional information on the Fish and Wildlife Coordination Act, see <http://www.fws.gov/laws/lawsdigest/fwcoord.html>

### **B.2.4. Magnuson-Stevens Fishery Conservation and Management Act**

The Magnuson-Stevens Fishery Conservation and Management Act governs the conservation and management of ocean fishing, including *essential fish habitat*.<sup>6</sup> Implemented by the NMFS, this Act establishes eight Regional Fishery Management Councils who are responsible for: (1) describing and identifying essential fish habitat in their respective regions; (2) specifying actions to conserve and enhance essential fish habitat; and (3) minimizing the adverse effects of fishing in essential fish habitat. The Magnuson-Stevens Fishery Conservation and Management Act also establishes exclusive U.S. management authority over all fishing within the U.S. exclusive economic zone,<sup>7</sup> all anadromous fish throughout their migratory range (except when in a foreign nation's waters), and all fish on the Continental Shelf. Consultation with the NMFS may be necessary if a proposed project has the potential to impact essential fish habitat.

---

<sup>6</sup> Essential fish habitat is defined as "...those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity."

<sup>7</sup> The exclusive economic zone is the zone where the United States and other coastal nations have jurisdiction over economic and resource management. The exclusive economic zone includes waters 3 to 200 miles offshore (or 9 to 200 miles offshore in western Florida and Texas). Coastal states are responsible for inshore waters out to 3 miles off the coast (or 9 miles off the west coast of Florida and Texas).

For additional information on the Magnuson-Stevens Fishery Conservation and Management Act, see <http://www.nmfs.noaa.gov/msa2007/>.

### **B.2.5. Marine Mammal Protection Act**

The Services also jointly administer the Marine Mammal Protection Act (MMPA) of 1972. The MMPA protects all marine mammals and prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas. In addition, the MMPA prohibits the importation of marine mammals and marine mammal products into the United States. Under the MMPA, the USFWS has jurisdiction over sea and marine otters, walruses, polar bears, three species of manatees, and dugongs; the NMFS has jurisdiction over sea lions, whales, and dolphins. Consultation with the Services may be necessary if a proposed project has the potential to impact marine mammals.

For additional information on the MMPA, including links to MMPA regulations and descriptions of marine mammals, see <http://www.nmfs.noaa.gov/pr/laws/mmpa/> and <http://www.fws.gov/international/animals/marine-mammals.html>.

### **B.2.6. Migratory Bird Treaty Act**

The Migratory Bird Treaty Act of 1918 protects migratory birds by prohibiting private parties (and Federal agencies in certain judicial circuits) from intentionally taking,<sup>8</sup> selling, or conducting other activities that would harm migratory birds, their eggs, or nests (such as removal of an active nest or nest tree), unless the Secretary of the Interior authorizes such activities under a special permit. Administered by the USFWS, the Act implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union (now Russia) for the protection of more than 800 species of migratory birds. Coordination with the USFWS may be necessary if a proposed project has the potential to affect migratory birds.

For additional information on the Migratory Bird Treaty Act, see the:

- Migratory Bird Treaty Act: <http://www.fws.gov/laws/lawsdigest/migtrea.html>
- USFWS Migratory Bird Program: <http://www.fws.gov/migratorybirds/>
- Migratory Bird List: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BirdManagement.html>
- Link to IPaC database: <http://ecos.fws.gov/ipac/>

### **B.2.7. Executive Order 13112, *Invasive Species***

As defined by Executive Order 13112, *Invasive Species*, 64 *Federal Register* 6183, (February 8, 1999), invasive species are non-native species whose introduction does or is likely to cause economic or environmental harm or harm to human health. A species is regarded as invasive if it:

---

<sup>8</sup> Under the Migratory Bird Treaty Act, *taking* is defined as “pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting.”

1. Has been introduced by human action to a location where it did not previously occur naturally;
2. Becomes capable of establishing a breeding population in the new location without further intervention by humans; and
3. Spreads throughout the new location.

Pursuant to this Executive Order, Federal agencies whose actions may affect the status of invasive species are directed to use relevant programs and authorities, to the extent practicable and subject to available resources, to prevent the introduction of invasive species, and to provide for the restoration of native species and habitat conditions in ecosystems that have been invaded. Agencies are directed not to carry out actions that they believe are likely to cause or promote the introduction or spread of invasive species unless the benefits of such actions clearly outweigh the potential harm, and all feasible and prudent measures, and mitigation to minimize risk of harm are taken.

For additional information

- Link to Executive Order 13112: <http://www.gpo.gov/fdsys/pkg/FR-1999-02-08/pdf/99-3184.pdf>
- Link to the National Invasive Species Council website: <http://www.invasivespecies.gov/>

### **B.2.8. Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds***

Executive Order 13186, *Responsibilities of Federal Agencies To Protect Migratory Birds*, 66 *Federal Register* 3853, (January 17, 2001) directs Federal agencies to take action to further implement the Migratory Bird Treaty Act for Federal actions that have, or are likely to have, a measurable negative effect on migratory bird populations, through the development and implementation of Memorandums of Understanding (MOUs) with the USFWS. In accordance with this Executive Order, the FAA signed a Memorandum of Agreement (MOA)<sup>9</sup> with the USFWS and other Federal agencies in December 2002 to address aircraft-wildlife strikes. Through this MOA, the agencies established procedures to coordinate their missions to more effectively mitigate against existing and future environmental conditions that contribute to wildlife strikes with aircraft.

For additional information on this Executive Order, see <http://www.gpo.gov/fdsys/pkg/FR-2001-01-17/pdf/01-1387.pdf>

---

<sup>9</sup> MOA Between the Federal Aviation Administration, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes. Available at: [http://www.faa.gov/airports/environmental/media/wildlife\\_hazard\\_mou\\_2003.pdf](http://www.faa.gov/airports/environmental/media/wildlife_hazard_mou_2003.pdf).

### **B.2.9. CEQ Guidance, *Incorporating Biodiversity Considerations Into Environmental Impact Analysis Under the National Environmental Policy Act***

In accordance with 40 CFR §§ 1507.2(e), 1508.8(b), and 1508.27, this guidance directs Federal agencies to consider the effects of Federal actions on biodiversity to the extent that is possible to both anticipate and evaluate those effects. The guidance outlines the general principles and discusses the importance of context – that is, examining the direct, indirect, and cumulative impacts of a specific project in the regional or ecosystem context.

For additional information see the CEQ Guidance at [http://energy.gov/sites/prod/files/nepapub/nepa\\_documents/RedDont/G-CEQ-BiodiversityConsiderations.pdf](http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-BiodiversityConsiderations.pdf)

### **B.2.10. Memorandum of Understanding to Foster the Ecosystem Approach (December 1995)**

This MOU was signed between Council on Environmental Quality (CEQ) and all Federal Departments, EPA, and the Office of Science Technology Policy. The MOU emphasizes consideration of all relevant and identifiable ecological and economic consequences both long term and short term; coordination among Federal agencies; partnership; communication with the public; efficient and cost-effective implementation; use of best available science; improved data and information management, and responsiveness to changing circumstances. The MOU can be found at <http://environment.fhwa.dot.gov/guidebook/vol1/doc17b.pdf>

## **B.3. Climate**

### **B.3.1. Clean Air Act**

The CAA is the comprehensive Federal law that regulates the emission of air pollutants from stationary and mobile sources. Among other things, the CAA authorizes the U.S. EPA to establish NAAQS for common air pollutants (known as “criteria pollutants”) to protect public health and welfare, and to regulate emissions of hazardous HAPs. More information on the CAA is available at <http://www2.epa.gov/laws-regulations/summary-clean-air-act>

### **B.3.2. Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance**

The Executive Order makes it the policy of the United States that Federal agencies measure, report, and reduce their Greenhouse Gas (GHG) emissions from direct and indirect activities. Provides for development of the Technical Support Document that establishes reporting criteria for GHGs. The Executive Order is available at [https://www.whitehouse.gov/assets/documents/2009fedleader\\_eo\\_rel.pdf](https://www.whitehouse.gov/assets/documents/2009fedleader_eo_rel.pdf)

The following statutes and Executive Orders govern the protection of coastal resources.

### **B.3.3. Coastal Barrier Resources Act**

The Coastal Barrier Resources Act (CBRA) encourages the conservation of hurricane prone, biologically-rich coastal barriers by restricting Federal financial assistance (including disaster relief assistance provided by the Federal Emergency Management Agency (FEMA)) for development of these ecosystems. Administered by the USFWS, the CBRA established the Coastal Barrier Resources System (CBRS), a designation of relatively undeveloped coastal barriers that serve as barriers protecting the Atlantic, Gulf, and Great Lakes coasts. The CBRS currently includes 585 units, comprising nearly 1.3 million acres of land and associated aquatic habitat.

Section 6 of the CBRA provides exemptions for Federal agencies to fund certain projects within the CBRS. Under these exemptions, the FAA may provide financial support to set up, operate, or maintain navigational aids and devices that are part of the nation's air navigation system in CBRS units. Compliance with the CBRA may require consultation with the USFWS. This Act does not address Federal actions that do not involve expenditures, such as the issuance of Federal permits, licenses, or other authorizations. Areas within the CBRS can be developed provided the applicant bears the full cost. However, the FAA encourages applicants to meet the requirements of the Act.

For additional information on the CBRA, see the USFWS's website at: <http://www.fws.gov/CBRA/> or the DOI Coastal Barrier Act Advisory Guidelines at 57 *Federal Register* 52730, (November 5, 1992).

### **B.3.4. Coastal Zone Management Act**

The Coastal Zone Management Act (CZMA) is a Federal law which provides for management of the nation's coastal resources, including the Great Lakes. Administered by the National Oceanic and Atmospheric Administration's (NOAA's) Office of Ocean and Coastal Resource Management (OCRM), the CZMA was created to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone.

One of the programs outlined by the CZMA is the National Coastal Zone Management Program, which is a voluntary partnership among the Federal government and coastal and Great Lakes states and territories. Under this program, state governments design unique coastal zone management programs which are subsequently approved by NOAA. Once these programs have been approved, the CZMA requires that any Federal actions that could have a reasonably foreseeable impact on a state's coastal zone (even if the action occurs outside the designated coastal zone) be consistent with the approved coastal management program for that state. Fulfilling the FAA's obligations under the CZMA may require conducting consultation with the affected state's coastal management program office.

For additional information on the CZMA, including links to NOAA's CZMA regulations, see NOAA's website at: <http://coast.noaa.gov/>.

### **B.3.5. National Marine Sanctuaries Act**

The National Marine Sanctuaries Act authorizes the Secretary of Commerce to designate and protect areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational,



or aesthetic qualities as national marine sanctuaries. The primary objective of this Act is to protect marine resources, such as coral reefs, sunken historical vessels, or unique habitats. The Act provides the authority to issue regulations for sanctuaries, requires preparation of management plans, authorizes NOAA to assess civil penalties, and requires Federal agencies whose actions could impact sanctuary resources to consult with the program before taking action.

For additional information on the National Marine Sanctuaries Act, see NOAA's website at: <http://sanctuaries.noaa.gov/about/legislation/>.

### **B.3.6. Executive Order 13089, *Coral Reef Protection***

Executive Order 13089, *Coral Reef Protection*, 63 *Federal Register* 32701, (June 16, 1998) requires Federal agencies to identify any actions that might affect coral reef ecosystems, protect and enhance the conditions of these ecosystems, and ensure that, to the extent permitted by law, the actions carried out, authorized, or funded by Federal agencies will not negatively impact or degrade coral reef ecosystems. Under this Executive Order, U.S. coral reef ecosystems are defined to mean those species, habitats, and other natural resources associated with coral reefs in all maritime areas and zones subject to the jurisdiction or control of the United States.

For additional information on

- The Executive Order, see [http://www.coralreef.gov/about/executive\\_order13089.pdf](http://www.coralreef.gov/about/executive_order13089.pdf).
- NOAA's Coral Reef Conservation Program see <http://coralreef.noaa.gov/>
- Coral Reefs in General see EPA's Coral website at [http://water.epa.gov/type/oceb/habitat/coral\\_index.cfm](http://water.epa.gov/type/oceb/habitat/coral_index.cfm)

### **B.3.7. Executive Order 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes***

Executive Order 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes*, 75 *Federal Register* 43023, (July 22, 2010) ensures that the ocean, our coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured, so as to promote the well-being, prosperity, and security of present and future generations. This Executive Order establishes the National Policy for the Stewardship of the Ocean and provides that Federal agencies will ensure the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources, enhance the sustainability of ocean and coastal economies, preserve our maritime heritage, support sustainable uses and access, provide for adaptive management to enhance our understanding of and capacity to respond to climate change and ocean acidification, and coordinate with our national security and foreign policy interests. In addition, this Executive Order establishes the National Ocean Council, and directs the Council to develop a National Ocean Policy Implementation Plan. Agencies are directed to comply with the Council's recommendations, and use the best available science and knowledge to inform decisions affecting the ocean, our coasts, and the Great Lakes.

For additional information on this Executive Order, see <http://www.gpo.gov/fdsys/pkg/FR-2010-07-22/pdf/2010-18169.pdf>

## **B.4. Farmlands**

The following statute governs the protection of farmlands.

### **B.4.1. Farmland Protection Policy Act**

The Farmland Protection Policy Act, administered by the Natural Resource Conservation Service (NRCS), regulates Federal actions with the potential to convert farmland to non-agricultural uses. This Act is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to non-agricultural uses. It ensures that, to the extent possible, Federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmlands. Please note that any acquisition or use of farmland by a Federal agency for the purposes of national defense is considered exempt under the Farmland Protection Policy Act.

This Act requires Federal agencies to use NRCS-established criteria to identify and take into account the potential adverse effects of their programs on the preservation of farmland, to consider alternative actions and mitigation, as appropriate, that could lessen adverse effects, and to ensure that their programs, to the extent practicable, are compatible with state and local government and private programs and policies to protect farmland. Federal agencies assess these impacts through completion of Form AD-1006, the *Farmland Conversion Impact Rating* form.

For additional information on NRCS-established criteria, see NRCS Regulations at: [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1042433.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1042433.pdf).

## **B.5. Hazardous Materials, Solid Waste, and Pollution Prevention**

The following statutes, Executive Orders, memorandum, and FAA orders and advisory circulars govern hazardous materials, solid waste, and pollution prevention.

### **B.5.1. Comprehensive Environmental Response, Compensation, and Liability Act**

Enacted in 1980, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was created to provide Federal authority to respond to releases of hazardous substances which may be harmful to public health or the environment. It established liability for those parties responsible for hazardous substance releases to pay cleanup costs and established a trust fund to finance cleanup costs in situations in which no responsible party could be identified. In addition, CERCLA enabled the creation of the National Priorities List (NPL), a list of sites with known releases or threatened releases of hazardous substances in the United States and its territories, used to guide the EPA in determining which sites warrant further investigation.

Some important aspects of CERCLA that are applicable to Federal actions include:

- Notifying the EPA and the public regarding release of hazardous substances that exceed reportable quantities. Under CERCLA, the EPA has established a list of those elements, compounds, mixtures, solutions, or substances considered a *hazardous substance* within the meaning of CERCLA. These substances are listed in 40 CFR § 302.4;
- Requiring all Federal agencies to comply with CERCLA regulations at all Federally-owned facilities; and

- Establishing an “innocent landowners” defense to CERCLA liability if the party acquiring the property conducted all appropriate inquiries prior to acquisition of the property.

For a general overview of CERCLA, see <http://www.epa.gov/superfund/policy/cercla.htm>. NPL site information may be accessed via EPA’s Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, which is available at: <http://www.epa.gov/superfund/sites/cursites/>.<sup>10</sup>

### **B.5.2. Oil Pollution Act**

The Oil Pollution Act of 1990 streamlined and strengthened the EPA’s ability to prevent and respond to catastrophic oil spills. A trust fund financed by a tax on oil is available to clean up spills when the responsible party is incapable or unwilling to do so. The Act requires oil storage facilities and vessels to submit to the Federal government plans detailing how they will respond to large discharges. The EPA has published regulations for aboveground storage facilities (see 40 CFR parts 9-300); the U.S. Coast Guard (USCG) has done so for oil tankers. The Act also requires the development of Area Contingency Plans to prepare and plan for oil spill response on a regional scale. The Act applies to facilities storing: (1) at least 1,320 gallons in aboveground containers that are 55 gallons in size or larger; or (2) at least 42,000 gallons in underground storage tanks.

For more information on the Oil Pollution Act, see the EPA website at: <http://www2.epa.gov/laws-regulations/summary-oil-pollution-act>.

### **B.5.3. Pollution Prevention Act**

The Pollution Prevention Act of 1990 requires pollution prevention and source reduction control so that wastes will have less effect on the environment while in use and after disposal. The intent of this Act should also be considered when reviewing potential sources associated with a proposed project and related pollution prevention measures.

For more information on the Pollution Prevention Act, see the EPA website at: <http://www2.epa.gov/laws-regulations/summary-pollution-prevention-act>.

### **B.5.4. Resource Conservation and Recovery Act**

The Resource Conservation and Recovery Act (RCRA) is a Federal statute that establishes guidelines for hazardous waste and non-hazardous solid waste management activities in the United States (40 CFR 240-299). Specifically, RCRA regulates the generation, storage, treatment, and disposal of waste. Administered by the EPA, the goals of RCRA are to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner.

---

<sup>10</sup> In 2014, the Superfund Program implemented a new information system, the Superfund Enterprise Management System (SEMS). Efforts to migrate data to SEMS and to enhance data quality control are progressing. The Program will continue to rely on the final CERCLIS data set (dated November 12, 2013, which reflects official end of Fiscal Year 2013 Program progress) for public reporting until a complete and accurate SEMS data set is available. The current estimate for refreshing the content on this page is December 31, 2014.

To achieve these goals, RCRA establishes three separate programs that govern hazardous and non-hazardous wastes:

**Hazardous wastes.** Subtitle C of RCRA establishes guidelines for the generation, treatment, storage, and disposal (TSD) of hazardous wastes.

**Non-hazardous wastes.** Subtitle D of RCRA creates a regulatory program for non-hazardous solid waste, such as household garbage, refuse (including construction material), and non-hazardous industrial solid waste.

**Underground storage tanks.** Subtitle I of RCRA governs the storage of materials in underground storage tanks, including storage of both unused products (including gasoline) and wastes.

Of these programs, the hazardous wastes and non-hazardous waste programs most relevant to FAA actions are described in more detail below.

#### **B.5.4.1. Hazardous Waste Management**

The NEPA review should demonstrate that the FAA or applicant, as appropriate, has determined whether hazardous wastes (as defined in 40 CFR part 261) will be disturbed, generated, transported, treated, stored, or disposed of by the action under consideration, and if so, how these wastes will be handled to conform to the regulatory requirements in 40 CFR parts 260-280 and transported to conform to 49 CFR parts 171-199. Therefore, the NEPA document should identify the types and approximate amounts of hazardous waste that will be generated, and identify appropriate disposal facilities.

The EPA's current list of identified hazardous wastes is available on the EPA's Wastes website at: <http://www.epa.gov/osw/hazard/wastetypes/listed.htm>.

#### **B.5.4.2. Non-hazardous Waste Management**

In addition to hazardous wastes, RCRA also sets forth a framework for the management of non-hazardous solid wastes that are exempt from Subtitle C regulations. In contrast to the hazardous waste program, RCRA does not authorize the EPA to issue Federal permits for disposal of non-hazardous solid wastes; rather, all planning, permitting, and enforcement responsibilities for these types of wastes is ultimately delegated to state and local governments.

For additional information on RCRA, and how it may be applicable to the proposed action or alternative(s), see the EPA's Wastes website at: <http://www.epa.gov/epawaste/laws-regs/index.htm> or consult EPA's RCRA Online website at: <http://www.epa.gov/epawaste/inforesources/online/index.htm>.

#### **B.5.5. Toxic Substances Control Act**

The Toxic Substances Control Act (TSCA) provides the EPA with the authority to regulate the production, importation, use, and disposal of chemicals defined as toxic, including lead, radon, asbestos, and polychlorinated biphenyls (PCBs), that have the potential to cause unreasonable risk of injury to public health or the environment. Through this Act, the EPA has established reporting, testing, and distribution requirements for the chemicals listed in the TSCA Inventory, which include substances such as asbestos, indoor radon, lead, and PCBs.

For more information on TSCA, see: <http://www.epa.gov/agriculture/lsc.html>.

### **B.5.6. Executive Order 12088, *Federal Compliance with Pollution Control Standards***

Executive Order 12088, *Federal Compliance With Pollution Control Standards*, 43 *Federal Register* 47707, (October 17, 1978) directs Federal agencies to comply with applicable pollution control standards, in the prevention, control, and abatement of environmental pollution and to consult with the EPA, state, interstate, and local agencies concerning the best techniques and methods available for the prevention, control, and abatement of environmental pollution. In addition, this Executive Order directs Federal agencies to ensure that construction or operation of Federal facilities outside the United States complies with the environmental pollution control standards of general applicability in the host country or jurisdiction. The NEPA document should identify how the FAA is complying with the applicable pollution control standards.

For more information on this Executive Order, see: [http://energy.gov/sites/prod/files/nepapub/nepa\\_documents/RedDont/Req-EO12088pollutioncontrol.pdf](http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-EO12088pollutioncontrol.pdf).

The former requirements of Section 1-4 of E.O. 12088 regarding pollution control plans were revoked by section 901 of Executive Order 13148, [Greening the Government Through Leadership in Environmental Management](#) (April 21, 2000).

### **B.5.7. Executive Order 12580, *Superfund Implementation***

Executive Order 12580, *Superfund Implementation*, 52 *Federal Register* 2923, (January 29, 1987) addresses various Federal agency activities in implementing the statutory provisions and regulations of CERCLA. The Executive Order creates a National Response Team made up of various Federal agencies and departments for national planning and coordination of preparedness and response actions, and also creates regional response teams. The Executive Order also contains a very detailed delegation of various Presidential responsibilities imposed under CERCLA to various officials in Federal department agencies. Among the types of authorities delegated are those for response action oversight, enforcement, liability determinations, litigation, and Superfund management. The Executive Order applies to or affects responses to major oil or hazardous substance spills or releases that occur on- or off-site and impact the facility.

For more information on this Executive Order, see: <http://www.archives.gov/Federal-register/codification/executive-order/12580.html>.

Also see Executive Order 13016, *Amendment to Executive Order No. 12580*, August 30, 1996 (61 *Federal Register* 45871) available at <http://www.gpo.gov/fdsys/pkg/FR-1996-08-30/pdf/96-22462.pdf> and Executive Order 13308, *Further Amendment to Executive Order 12580*, as Amended, June 20, 2003 (68 *Federal Register* 37691) available at <http://www.gpo.gov/fdsys/pkg/FR-2003-06-24/pdf/03-16102.pdf>.

**B.5.8. Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance***

Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, 74 *Federal Register* 52117, (October 8, 2009) requires all Federal agencies to make sustainability a priority in agency operations, and covers all aspects of agency operations from the construction or renovation of agency facilities to the conduct of daily business. The reduction of greenhouse gases (GHGs) from Federal activities is one of the primary focuses of the Executive Order. Other sustainability considerations include reduced environmental impact from materials used in agency operations and eliminating waste, recycling, and preventing pollution. The Executive Order calls for specific management strategies to improve sustainability including, among others, minimizing the acquisition, use, and disposal of toxic and hazardous materials. It sets a target of achieving a 50 percent or higher diversion rate for non-hazardous solid waste, and construction and demolition materials and debris by fiscal year (FY) 2015.

For more information on this Executive Order, see: <http://www.gpo.gov/fdsys/pkg/FR-2009-10-08/pdf/E9-24518.pdf>.

**B.5.9. Council on Environmental Quality Memorandum on *Pollution Prevention and the National Environmental Policy Act***

The CEQ Memorandum on *Pollution Prevention and the National Environmental Policy Act* (January 12, 1993) encourages early consideration by Federal agencies (for example, during the NEPA scoping process) of opportunities for pollution prevention. In accordance with this guidance, the FAA should, to the extent practicable, include pollution prevention considerations in the proposed action and its alternative(s); address pollution prevention in the environmental consequences section; and disclose in the Record of Decision (ROD) the extent to which pollution prevention was considered.

The memorandum can be accessed from CEQ's website at: [https://ceq.doe.gov/nepa/regs/Pollution\\_Prevention\\_Guidance\\_Jan\\_1993.pdf](https://ceq.doe.gov/nepa/regs/Pollution_Prevention_Guidance_Jan_1993.pdf)

**FAA Orders and Advisory Circulars**

There are several FAA orders to review for guidance on the design, construction, and operational compliance of FAA facilities with pollution control statutes depending on the nature of the proposed action or alternative(s). These include the following:

- FAA Order 1050.10C, *Prevention, Control and Abatement of Environmental Pollution at FAA Facilities* at: [http://www.faa.gov/documentLibrary/media/Order/ND/1050\\_10c.pdf](http://www.faa.gov/documentLibrary/media/Order/ND/1050_10c.pdf);
- FAA Order 1050.14B, *Polychlorinated Biphenyls (PCB) in the National Airspace System* at: <http://www.faa.gov/documentLibrary/media/Order/order%201050.14B.pdf>;
- FAA Order 1050.15A, *Fuel Storage Tanks at FAA Facilities* at: [http://www.faa.gov/documentLibrary/media/order/energy\\_orders/1050.15A.pdf](http://www.faa.gov/documentLibrary/media/order/energy_orders/1050.15A.pdf);
- FAA Order 1050.16, *Implementation Guidelines for Compliance With Underground Storage Tanks (UST)* at:



[http://www.faa.gov/regulations\\_policies/orders\\_notices/index.cfm/go/document.information/documentID/6407](http://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.information/documentID/6407);

- FAA Order 1050.18, *Chlorofluorocarbons and Halon Use at FAA Facilities* at: [http://www.faa.gov/documentLibrary/media/order/energy\\_orders/1050.18.pdf](http://www.faa.gov/documentLibrary/media/order/energy_orders/1050.18.pdf).

The full text of these orders can be accessed through the FAA document library on the FAA's website.

Additionally, there are two FAA advisory circulars that may provide further guidance:

- FAA AC 150/5320-15A, *Management of Airport Industrial Waste* at: [http://www.faa.gov/documentLibrary/media/advisory\\_circular/150-5320-15A/150\\_5320\\_15a.pdf](http://www.faa.gov/documentLibrary/media/advisory_circular/150-5320-15A/150_5320_15a.pdf); and
- FAA AC 140.5200-33B, *Hazardous Wildlife Attractants On or Near Airports*, at: [http://www.faa.gov/documentLibrary/media/advisory\\_circular/150-5200-33B/150\\_5200\\_33b.pdf](http://www.faa.gov/documentLibrary/media/advisory_circular/150-5200-33B/150_5200_33b.pdf).

## **B.6. Historical, Architectural, Archeological, and Cultural Resources**

The following statutes and Executive Orders govern the protection of historical, architectural, archeological, and cultural resources.

### **B.6.1. American Indian Religious Freedom Act**

The American Indian Religious Freedom Act requires consultation with Native American groups concerning actions on sacred sites or affecting access to sacred sites. It establishes Federal policy to protect and preserve the right to free exercise of religion for American Indians, Eskimos, Aleuts, and Native Hawaiians. It allows these people to access sites, use and possess sacred objects, and freedom to worship through ceremonial and traditional rites. In practical terms, the Act requires Federal agencies to consider the impacts of their actions on religious sites and objects that are important to Native Americans, including Alaska Natives and Native Hawaiians, regardless of the eligibility for the National Register of Historic Places (NRHP). For more information on the American Indian Religious Freedom Act, see [http://www.cr.nps.gov/local-law/fhpl\\_IndianRelFreAct.pdf](http://www.cr.nps.gov/local-law/fhpl_IndianRelFreAct.pdf).

### **B.6.2. Historic Sites Act**

The Historic Sites Act declares as national policy the preservation for public use of historic sites, buildings, objects, and properties of national significance. It gives the Secretary of the Interior authority to make historic surveys, to secure and preserve data on historic sites, and to acquire and preserve archeological and historic sites. The Act also establishes the National Historic Landmarks program for designating properties having exceptional value in commemorating or illustrating the history of the United States. It gives the Secretary of the Interior broad powers to protect nationally significant historic properties, including the Secretary's authority to establish and acquire nationally significant historic sites. For more information on the Historic Sites Act, see [http://www.cr.nps.gov/local-law/FHPL\\_HistSites.pdf](http://www.cr.nps.gov/local-law/FHPL_HistSites.pdf).



### **B.6.3. National Historic Preservation Act**

The National Historic Preservation Act (NHPA) establishes an independent agency, the Advisory Council on Historic Preservation (ACHP). It also establishes the NRHP within the National Park Service (NPS). Section 106 of NHPA requires Federal agencies to consider the effects of their undertaking (or action) and consult with specific parties on properties listed on or eligible for listing on the NRHP. “Eligible” for listing in the NRHP includes all properties that meet the specifications laid out in the DOI regulations at 36 CFR § 60.4.

Section 110 of the NHPA governs Federal agencies’ responsibilities to preserve and use historic buildings; designate an agency Federal Preservation Officer; and identify, evaluate, and nominate eligible properties under the control or jurisdiction of the agency to the NRHP.

Section 112 of the NHPA addresses professional standards. Section 314 discusses confidentiality requirements that may apply to an undertaking. Section 402 discusses Federal actions outside the United States that may adversely affect a property which is on the World Heritage List or on the applicable country’s equivalent of the NRHP. For more information on the NHPA, see the ACHP’s website at: <http://www.achp.gov/nhpa.html>.

### **B.6.4. Native American Graves Protection and Repatriation Act**

The Native American Graves Protection and Repatriation Act (NAGPRA) deals with the disposition of cultural items, including human remains, by a Federally-funded repository. Additionally, the NAGPRA governs the inadvertent discovery of cultural items on Federal or tribal lands. It provides for the inventory, protection, and return of cultural items to affiliated tribes. NAGPRA requires Archaeological Resources Protection Act permits, as well as consultation with tribes, for intentional excavation and removal of cultural items from Federal or tribal lands. Its regulations include provisions that, upon inadvertent discovery, the Federal agency will cease all activity in the area of discovery, protect the discovered items, and immediately notify the affected tribe. Disposition of the items must then be carried out in accordance with NAGPRA procedures. For more information on NAGPRA, see the NPS’ website at: <http://www.nps.gov/archeology/tools/Laws/NAGPRA.htm>.

### **B.6.5. Executive Order 13007, *Indian Sacred Sites*; Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*; and Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments**

Executive Order 13007, *Indian Sacred Sites*, 61 *Federal Register* 26771, (May 29, 1996) applies to Federal agencies that manage Federal lands, defined as “any land or interests in land owned by the United States, including leasehold interests held by the United States, except Indian trust lands.” Agencies, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, must: (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners; and (2) avoid adversely affecting the physical integrity of such sacred sites. Agencies shall maintain the confidentiality of sacred sites by virtue of their established religious significance to, or ceremonial use by, an Indian religion, provided the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site. Executive Order 13007 requires Federal agencies to consult on a government-to-government basis with tribes if the proposed project involves an

Indian Sacred Site. This provides meaningful and timely input in development of regulatory policies on matters that significantly or uniquely affect their communities. Additional information may be obtained from the FAA Federal Preservation Officer. For more information on Executive Order 13007, see <http://www.gpo.gov/fdsys/pkg/FR-1996-05-29/pdf/96-13597.pdf>. For more information on Executive Order 13175, see <http://www.gpo.gov/fdsys/pkg/FR-2000-11-09/pdf/00-29003.pdf>. For more information on the Presidential Memorandum, see <http://www.gpo.gov/fdsys/pkg/WCPD-1994-05-02/pdf/WCPD-1994-05-02-Pg936.pdf>.

## B.7. Natural Resources and Energy Supply

The following statute and Executive Order govern the protection of natural resources and energy supply.

As stated in the Energy Independence and Security Act (EISA) and Executive Order 13423 *Strengthening Federal Environmental, Energy, and Transportation Management*, 72 Federal Register 3919, (January 26, 2007) the FAA must reduce building energy intensity<sup>11</sup> in goal subject buildings by 30 percent by the end of FY 2015 relative to the FY 2003 baseline (see Section 2(a)(ii) of Executive Order 13423 and Section 431 of EISA (42 U.S.C. § 8253(a)(1))). The FAA must reduce potable water intensity<sup>12</sup> 2 percent annually or 26 percent by the end of FY 2020 relative to a FY 2007 baseline (see Section 2(d)(i) of Executive Order 13514). The FAA must also seek to identify, promote, and implement water reuse strategies that reduce potable water consumption. The FAA must reduce consumption of industrial, landscaping, and agricultural water by 2 percent annually or 20 percent by the end of FY 2020 relative to a FY 2010 baseline (see Section 2(d)(ii) of Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, 74 Federal Register 52117, (October 8, 2009)).

If an action involves large capital energy or water investment in an existing building that is not a major renovation but involves replacement of installed equipment (such as heating and cooling systems), or involves renovation, rehabilitation, expansion, or remodeling of existing space, the FAA must employ the most energy and water efficient designs, systems, equipment, and controls that are life cycle cost-effective (see Section 434(a) of EISA (42 U.S.C. § 8253)).

If the proposed action involves the new construction or major renovation of an FAA-owned building or built to suit lease, the following requirements must be met. It is the responsibility of the LOB/SO that is planning, designing, and constructing the building to ensure implementation of these requirements. These requirements must be incorporated into standard design criteria, statements of work, and construction documents.

1. All new FAA construction and major renovation projects must be completed in accordance with the Federal building design standards most recently published by the U.S. Department of Energy (DOE) (see 10 CFR part 433).

---

<sup>11</sup> **Energy Intensity** refers to the amount of energy, in British Thermal Units (BTUs), consumed per gross square foot of a facility.

<sup>12</sup> **Potable Water Intensity** refers to the amount of potable water, in gallons, consumed per gross square foot of a facility.

2. New and replacement FAA buildings must be designed to achieve energy consumption levels that are at least 30 percent below the levels established in ASHRAE 90.1 standard or International Energy Code, if life cycle cost-effective (see Section 109(2)(i) of the Energy Policy Act (EPAct) (42 U.S.C. § 6834(a))).
3. New construction and major renovation projects must be designed so that the fossil fuel-generated energy consumption of the buildings is reduced, as compared with such energy consumption by a similar building in FY 2003 (as measured by Commercial Buildings Energy Consumption Survey or Residential Energy Consumption Survey data from the Energy Information Agency), by the percentage specified in the following bullets (see Section 433(a)(D)(i) of EISA (42 U.S.C. § 6834 (a)(3))):
  - 55% reduction for building beginning design in FY 2010;
  - 65% reduction for building beginning design in FY 2015;
  - 80% reduction for building beginning design in FY 2020;
  - 90% reduction for building beginning design in FY 2025; and
  - 100% reduction for building beginning design in FY 2030.
4. All new FAA buildings that enter the planning process in FY 2020 and thereafter must be designed to achieve zero-net-energy by FY 2030. A zero-net-energy building requires a greatly reduced quantity of energy to operate and meets the balance of energy needs from energy sources that do not produce GHGs, therefore resulting in no net emissions of GHGs, and is economically viable (see Section 2(g)(i) of Executive Order 13514).
5. The FAA must ensure that new construction and major renovations of buildings comply with the *Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles)* (see Section 2(g)(ii) of Executive Order 13514). The *Guiding Principles* require new construction and major renovations to:
  - Employ Integrated Design Principles;
  - Optimize Energy Performance;
  - Protect and Conserve Water;
  - Enhance Indoor Environmental Quality; and
  - Reduce Environmental Impact of Materials.
6. The FAA must meet 30 percent of hot water demand in new construction and major renovations through installation and use of solar hot water heaters, where life cycle cost-effective (see Section 523(3) of EISA (42 U.S.C. § 6834(a)(3)(A))).
7. All new construction and major renovation projects at FAA facilities must include installation of advanced meters for electricity (see Section 103(e)(1) of EPAct (42 U.S.C. § 8253), and gas and steam advanced meters (see Section 434(b) of EISA (42 U.S.C. § 8253(e)(1))), where practical and cost-effective. All meters must be installed at the building or sub metering level in accordance with current DOE Federal Energy Management Program metering best practices.
8. The FAA must, in a manner that is consistent with state law, identify, promote, and implement water reuse strategies that reduce potable water consumption (see Section 2(d)(iii) of Executive Order 13514).
9. The FAA must implement renewable energy generation projects on FAA property for FAA use, to the extent feasible (see Section 2(b)(ii) of Executive Order 13423 and Section 2(ii) of

Executive Order 13514). The FAA should give preference to renewable energy investments that enhance or improve the operation of the National Airspace System, for example, by improving reliability. Proposed actions should evaluate implementation of on-site renewable energy generation.

10. Any proposed action involving the development or redevelopment of an FAA facility with a footprint that exceeds 5,000 square feet must use site planning, design, construction, and maintenance strategies to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow (see Section 438 of EISA (42 U.S.C. § 17094)). The FAA must implement and achieve the objectives in the EPA's Stormwater Guidance, *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* (see Section 2(d)(iv) of Executive Order 13514). As defined within EPA's guidance, the term "footprint" includes all land areas that are disturbed as part of a project.

For any proposed action involving the direct leasing of space, the lease must have received the ENERGY STAR® designation in the most recent year, if financially feasible (see Section 435(a) of EISA (42 U.S.C. § 17091)). The acquisition is considered financially feasible if the proposed rental is not more than 10 percent over the market rate for a comparable building in the same rental market. If one of the conditions described below is met, the FAA may enter into a contract to lease space in a building that has not earned the ENERGY STAR® label in the most recent year. However, the lease contract must include provisions requiring that, prior to occupancy, building owners must implement lease-duration cost-effective efficiency and conservation improvements. In the case of remaining in a current building, the owner must implement improvements not later than one year after signing the contract. This includes improvements in lighting, building envelope, and HVAC systems. The Real Estate Contracting Officer (RECO) can make an exception when:

1. ENERGY STAR® rated space is not available that meets the FAA's functional requirements;
2. The FAA proposes to remain in a building that the agency has occupied previously;
3. The FAA proposes to lease a building of historical, architectural, or cultural significance (as defined in 40 U.S.C. § 3306(a)(4)) or space in such a building; or
4. The lease is for less than 10,000 gross square feet of space (see Section 435(b)(1)(D) of EISA (42 U.S.C. § 17091)).

For any proposed action involving a direct lease greater than 5,000 gross square feet, compliance with the *Guiding Principles* must be evaluated. The FAA must implement sustainable practices for the lease, operation, and maintenance of buildings (see Section 3(a)(vii) of Executive Order 13423). The FAA must ensure that at least 15 percent of existing owned and FAA leased buildings, greater than 5,000 gross square feet, meet the *Guiding Principles* by FY 2015 and make annual progress toward 100-percent conformance (see Section 2(g)(iii) of Executive Order 13514). A RECO may pay a premium for sustainable leased spaces to the extent that funds are available. The space acquisition will be considered financially feasible if:

1. The rental offer for space in a conforming building is no more than 10 percent greater than the market rate for a comparable conventional building in the same rental market.

2. If the market does not support buildings that meet the *Guiding Principles*, then the RECO must provide written justification in the Negotiator Report.

## **B.8. Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks**

The following statutes, orders, regulations, and other documents govern socioeconomics and environmental justice.

### **B.8.1. Socioeconomics**

#### **B.8.1.1. Council on Environmental Quality Regulations for Implementing NEPA**

The CEQ Regulations require analysis of socioeconomic impacts by stating that “*effects*” to be considered when preparing a NEPA document include “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative” (see 40 CFR § 1508.8) and that through NEPA, the *Human Environment* “shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment” (see 40 CFR § 1508.14). The CEQ Regulations also state that although “economic or social effects are not intended by themselves to require preparation of an environmental impact statement” when “economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.” The CEQ Regulations use the terms “effects” and “impacts” synonymously.

#### **B.8.1.2. Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970**

If acquisition of real property or displacement of people would occur as a result of the proposed action or alternative(s), follow the provisions in 49 CFR part 24 (which implements the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970), which state the following:

- a. Ensure that owners of real property to be acquired for Federal and Federally-assisted projects are treated fairly and consistently, to encourage and expedite acquisition by agreements with such owners, to minimize litigation and relieve congestion in the courts, and to promote public confidence in Federal and Federally-assisted land acquisition programs;
- b. Ensure that persons displaced as a direct result of Federal or Federally-assisted projects are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole; and
- c. Ensure that Agencies implement these regulations in a manner that is efficient and cost effective.

To view the full text of the regulation posted on the FHWA's website, see <http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr4924a.htm>.

If the proposed action or alternative(s) does not specifically require acquisition of property or displacement of people, the FAA, to the fullest extent possible, should observe all state and local

laws, regulations, and ordinances concerning zoning, transportation, economic development, and housing when planning, assessing, or implementing a proposed action or alternative(s).

## **B.8.2. Environmental Justice**

### **B.8.2.1. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations***

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, 59 *Federal Register* 7629, (February 16, 1994) requires Federal agencies to incorporate environmental justice into their planning processes by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The Executive Order encourages Federal agencies to provide public involvement opportunities for low-income or minority populations. This includes demographic analysis identifying and addressing impacts from the proposed action and alternative(s) on low-income or minority populations that may experience a disproportionately high and adverse effect. The Executive Order encourages each Federal agency, whenever practicable and appropriate, to collect, maintain, and analyze information assessing and comparing environmental and human health risks posed to populations identified by race, national origin, or income and use this data to identify multiple and cumulative exposures on these at-risk populations.

To read the full text of this Executive Order, see [http://energy.gov/sites/prod/files/EJ\\_MOU\\_201108.pdf](http://energy.gov/sites/prod/files/EJ_MOU_201108.pdf)

### **B.8.2.2. Department of Transportation Order 5610.2, Environmental Justice in Minority and Low-Income Populations**

This Order was issued to comply with Executive Order 12898. This Order outlines the DOT's commitment to the principles of environmental justice and presents a program for department-wide implementation. The Order established environmental justice policy "to actively administer and monitor its operations and decision making to ensure that nondiscrimination is an integral part of its programs, policies, and activities." The Order emphasizes identifying and evaluating environmental, public health, and interrelated social and economic effects; proposing measures to avoid, minimize, and/or mitigate disproportionately high and adverse effects; and eliciting public involvement from affected communities. The following two principles are presented for integrating environmental justice into current policies and practices:

1. Planning and programming activities that have the potential to have a disproportionately high and adverse effect on human health or the environment shall include explicit consideration of the effects on minority populations and low-income populations. Procedures shall be established or expanded, as necessary, to provide meaningful opportunities for public involvement by members of minority populations and low-income populations during the planning and development of programs, policies, and activities (including the identification of potential effects, alternatives, and mitigation measures).
2. Steps shall be taken to provide the public, including members of minority populations and low-income populations, access to public information concerning the human health or environmental impacts of programs, policies, and activities, including information that will



address the concerns of minority and low-income populations regarding the health and environmental impacts of the proposed action or alternative(s).

To read the full text of the Order, see the FHWA's website at: [http://www.fhwa.dot.gov/environment/environmental\\_justice/ej\\_at\\_dot/orders/order\\_56102a/dot56102a.pdf](http://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/dot56102a.pdf).

#### **B.8.2.3. CEQ Guidance – *Environmental Justice: Guidance Under the National Environmental Policy Act***

In addition to the regulatory requirements listed above, CEQ issued guidance suggesting how environmental justice could be considered in NEPA documents. The CEQ document, *Environmental Justice: Guidance Under the National Environmental Policy Act* (December 1997), offers several principles focusing on identifying minority and low-income communities, providing meaningful opportunities for public participation, and mitigating potential disproportionately high and adverse environmental and human health effects. Other areas of emphasis include addressing language barriers, seeking tribal representation, and considering environmental justice in specific phases of the NEPA process.

The guidance suggests that it is important to recognize that the cultural, historic, or social concerns of a low-income or minority population amplify that population's perceptions of an action's effects. Consequently, reaching out to local community leaders, tribal elders, or other suitable spokespeople early in the environmental process is often an important step in efficiently and effectively completing an environmental justice analysis. Often, that contact is the best way to collect information essential to addressing an affected population's culturally important concerns and needs (for example, subsistence consumption of fish, vegetation, and wildlife; unique ceremonial lands; or water bodies, landforms, buildings, or vistas important to a population's culture). In some instances, outreach efforts scheduled for certain times and places may be the only way to gather that information.

To read the CEQ Guidance, see CEQ's website at: [http://www.epa.gov/compliance/ej/resources/policy/ej\\_guidance\\_nepa\\_ceq1297.pdf](http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_ceq1297.pdf).

#### **B.8.2.4. Memorandum of Understanding on Environmental Justice and Executive Order 12898 (August 4, 2011)**

The participating Federal agencies (which includes the FAA) of this MOU agree to declare the continued importance of identifying and addressing environmental justice considerations in their programs, policies, and activities as provided in Executive Order 12898. Agencies agree to renew the process under Executive Order 12898 for agencies to provide environmental justice strategies and implementation progress reports. In addition, agencies agree to establish structures and procedures to ensure that the Interagency Working Group operates effectively and efficiently. Lastly, agencies agree to identify particular areas of focus to be included in agency environmental justice efforts.

To review this MOU, see [http://energy.gov/sites/prod/files/EJ\\_MOU\\_201108.pdf](http://energy.gov/sites/prod/files/EJ_MOU_201108.pdf)

#### **B.8.2.5. Revised Department of Transportation Environmental Justice Strategy 2011**

In response to the Environmental Justice MOU (above), the DOT reviewed and updated the previous 1995 DOT Environmental Justice Strategy. This 2011 revised strategy continues to reflect DOT's commitment to environmental justice principles and to integrating those principles



into DOT programs, policies, and activities. The DOT continues to rely upon existing authorities for achieving environmental justice, as well as conforming to the commitments and focus areas set forth in the Environmental Justice MOU (i.e., implementation of NEPA, implementation of Title VI, impacts from climate change, and impacts from commercial transportation and supporting infrastructure).

To review this MOU, see [http://www.fhwa.dot.gov/environment/environmental\\_justice/ej\\_at\\_dot/dot\\_ej\\_strategy/](http://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/dot_ej_strategy/)

## B.9. Water Resources

The following statutes, orders, and regulations govern the protection of wetlands, floodplains, surface waters, and groundwater.

### B.9.1. Wetlands

#### B.9.1.1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating the discharge of pollutants into *waters of the United States*,<sup>13</sup> which include wetlands. Pollutants regulated under the CWA include *priority pollutants* which include various toxic pollutants; *conventional pollutants*, such as biochemical oxygen demand, total suspended solids, fecal coliform, oil and grease, and pH; and *non-conventional pollutants*, which include any pollutant not identified as either priority or conventional. The two primary sections of the CWA relating to wetland impacts and permitting are Section 404 and Section 401. See the EPA website on the CWA at: <http://www2.epa.gov/laws-regulations/summary-clean-water-act>

#### *Section 404*

Section 404 establishes a program to regulate the discharge of dredged or fill material into waters of the United States. Jointly administered by the U.S. Army Corps of Engineers (USACE) and the EPA, the USACE is responsible for the day-to-day administration of Section 404 and the review of Section 404 permit applications.<sup>14</sup> The EPA provides general program oversight. The fundamental rationale of the Section 404 permit program is that no discharge of dredged or fill material should be permitted if there is a practicable alternative that would be less damaging to the nation's aquatic resources, or if significant degradation would occur to the nation's waters.

---

<sup>13</sup> A *water of the United States* is considered a jurisdictional surface water or wetland under the CWA; the regulatory definition is found at 33 CFR § 328.3(a), and further guidance is found in the EPA/USACE Memorandum "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*." Any surface water not meeting this definition is considered non-jurisdictional, and therefore has no statutory protection under the CWA. It is important to note that not all surface waters are considered jurisdictional under the CWA. This determination is made on a case-by-case basis by the USACE; as a result, the FAA should consult with the USACE to determine the jurisdictional status of any surface water that may be affected by a proposed action or alternative(s).

<sup>14</sup> The CWA provides states with the option of administering the Section 404 permit program. To date, Michigan and New Jersey are the only states with this authority (40 CFR §§ 233.70-233.71).

As a result, before conducting dredge or fill activities in waters of the United States, including wetlands, the USACE must issue a permit authorizing such activities.

For additional guidance and information on Section 404 of the CWA, see the EPA website on Section 404 located at: <http://water.epa.gov/lawsregs/guidance/wetlands/sec404.cfm>.

### ***Section 401***

Section 401 ensures that Federal actions do not impair water quality. Section 401 requires that, prior to approval of any Federal action which may result in discharge into waters of the United States (such as a Section 404 permit), permit applicants must first receive a Section 401 water quality certification. The EPA has granted all states and 36 Native American tribes the authority to issue water quality certifications under Section 401. Before the USACE can issue a Section 404 permit, a Section 401 water quality certification must first be obtained. In most cases, Section 401 certification reviews are conducted at the same time as Section 404 permit reviews, as many states have established joint permit processes to ensure this occurs.

For additional guidance and information on Section 401 of the CWA, see the EPA website on Section 401 located at: <http://water.epa.gov/type/wetlands/outreach/fact24.cfm>.

### **B.9.1.2. Fish and Wildlife Coordination Act**

The Fish and Wildlife Coordination Act requires Federal agencies to consult with the USFWS, NMFS (in some instances), and appropriate state fish and wildlife agencies regarding the conservation of wildlife resources when proposed Federal projects may result in control or modification of the water of any stream or other water body (including wetlands). The Act provides for financial and technical assistance to states to develop conservation plans, subject to approval by the DOI, and implement state programs for fish and wildlife resources. The Act also encourages all Federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities, to conserve and promote the conservation of non-game fish and wildlife and their habitats. Coordination with the USFWS and state wildlife agencies may be necessary if the proposed project has the potential to impact applicable water bodies.

For additional information on the Fish and Wildlife Coordination Act, see the USFWS website located at: <http://www.fws.gov/laws/lawsdigest/fwcoord.html>.

### **B.9.1.3. Executive Order 11990, *Protection of Wetlands***

Executive Order 11990, *Protection of Wetlands*, 42 *Federal Register* 26961, (May 25, 1977) directs all Federal agencies to avoid adverse impacts associated with the destruction or modification of wetlands, to the extent practicable. The stated purpose of this Executive Order is to “minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.” To meet these objectives, this Executive Order requires Federal agencies to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. If use of wetland is proposed, the FAA must make a *finding* where an alternatives analysis should demonstrate that there is no practicable alternative to the use of the wetland and that all practicable measures to minimize harm to the wetland have been included. This Executive Order applies to acquisition, management, and

disposition of Federal lands, as well as facilities construction and improvement projects which are undertaken, financed, or assisted by Federal agencies except for permits, licenses, or allocations to private parties for activities involving wetlands on non-Federal property. In addition, this Executive Order applies to Federal activities and programs affecting land use, including but not limited to, water and related land resources planning, regulation, and licensing activities. This Executive Order applies to all wetlands, whether they are considered jurisdictional under the CWA or not.

For additional guidance and information on this Executive Order, please see the EPA website at: <http://water.epa.gov/lawsregs/guidance/wetlands/eo11990.cfm>.

#### **B.9.1.4. DOT Order 5660.1A, *Preservation of the Nation's Wetlands***

This DOT Order implements the guidelines set forth in Executive Order 11990. As stated in this DOT Order, transportation facilities should be planned, constructed, and operated in order to assure the protection and enhancement of wetlands (though as stated in Paragraph 4.b of DOT Order 5660.1A, this does not include routine repairs and maintenance of existing facilities). To comply with this DOT Order, the FAA should provide the public and agencies with special interest in wetlands appropriate opportunity for early review of proposals involving new construction in wetlands.

To view the full text of this DOT Order visit: <http://www.dot.ca.gov/ser/vol1/sec1/ch1fedlaw/USDOTOrder56601A.pdf>

### **B.9.2. Floodplains**

#### **B.9.2.1. National Flood Insurance Act**

The National Flood Insurance Act established the National Flood Insurance Program (NFIP), which is implemented by FEMA. NFIP is a voluntary floodplain management program for communities (cities, towns, or counties). Communities that participate must adopt sound floodplain management programs, and in exchange, the Federal government makes floodplain insurance available to the community to protect against financial losses. Any action within a FEMA-mapped floodplain in a participating community must follow the community's FEMA-approved floodplain management regulations.

For additional guidance and information on the NFIP, please visit <http://www.fema.gov/national-flood-insurance-program>.

#### **B.9.2.2. Executive Order 11988, *Floodplain Management***

Executive Order 11988, *Floodplain Management*, 42 *Federal Register* 26951, (May 25, 1977) requires Federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of 100-year floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. To accomplish this objective, Federal agencies should take action to reduce floodplain loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out their responsibilities.

For additional information on this Executive Order, see FEMA's website at:

<https://www.fema.gov/environmental-planning-and-historic-preservation-program/executive-order-11988-floodplain-management>

### **B.9.2.3. DOT Order 5650.2, *Floodplain Management and Protection***

DOT Order 5650.2 directs transportation agencies on how to implement Executive Order 11988.

For additional information on DOT Order 5650.2, see the DOT website at: <http://isddc.dot.gov/OLPFiles/DOT/007652.pdf>

## **B.9.3. Surface Waters**

### **B.9.3.1. Clean Water Act**

The sections of the CWA relating to waters of the United States are Section 303(d), Section 404, Section 401, and Section 402.

#### ***Section 303(d)***

Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of *impaired waters*. *Impaired waters* listed under Section 303(d) are those waters that do not meet water quality standards that states, territories, and authorized tribes have set for them, even after minimum pollution control standards for direct sources of pollution have been installed. The law requires that these jurisdictions establish priority rankings for waters on the list and develop total maximum daily loads of pollutants for these waters. The Section 303(d) list of impaired waters should be reviewed to determine if any impaired waters are present in a project's study area.

For additional information on impaired waters or to see a list of potential impaired waters in the study area, please visit the EPA's website at: <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/>.

#### ***Sections 404 and 401***

For discussion of Sections 404 and 401, see "Wetlands" above. These CWA sections also apply for jurisdictional non-wetland surface waters.

#### ***Section 402***

Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES) permit program. This program controls direct or *point source* discharges into waters of the United States. In most cases, the NPDES permit program is administered by authorized states and may be referred to as the State Pollutant Discharge Elimination System permit program. NPDES permits, issued by either the EPA or an authorized state/tribe, contain industry-specific, technology-based, and/or water-quality-based limits, and establish pollutant monitoring and reporting requirements.

The NPDES Stormwater Program regulates the discharge of polluted stormwater run-off into the waters of the United States due to industrial and construction-related activities. In general, all

construction activities disturbing 1 acre (43,560 ft<sup>2</sup>) of land or larger require coverage under a NPDES Construction General Permit. Under this NPDES permit, the construction site is considered the *point source*.

For additional guidance and information on Section 402 of the CWA, see the EPA website on Section 402 at: <http://water.epa.gov/lawsregs/guidance/wetlands/section402.cfm>.

### **B.9.3.2. Fish and Wildlife Coordination Act**

See discussion above under “Wetlands.”

### **B.9.3.3. Rivers and Harbors Act**

The Rivers and Harbors Act was established to protect the navigability of waters used for commerce in the United States. Section 9 of the Act prohibits the construction of any bridge, dam, dike, or causeway over or in navigable waterways of the United States without approval. As defined by the Act, *navigable waters of the United States* are those waters that are subject to the change in the tide and/or are used, have been used in the past, or may be susceptible to use to transport interstate or foreign commerce (see 33 CFR part 329). Administration of Section 9 of the Act has been delegated to the U.S. Coast Guard (USCG). As a result, any bridges or causeways built over navigable waters require a permit from the USCG.

Section 10 of the Act requires authorization from the USACE for the construction of any structure in, over, or under a navigable water, and for the excavation/dredging or deposition of material, or any obstruction or alteration in any navigable water. Structure or work outside the limits defined as navigable waters require a Section 10 permit if the structure or work affects the course, location, condition, or capacity of the surface water (for example, the construction of a new transmission line that is outside the limits of a navigable water but spans the navigable water).

For additional information and guidance on the Rivers and Harbors Act, visit the USACE website and its description of the Rivers and Harbors Act at: <http://www.sam.usace.army.mil/Missions/Regulatory/RegulatoryFAQ/RiversandHarborsAppropriationActof1899.aspx>